

REMARKS

This listing of claims will replace all prior versions and listings of claims in the application. Claims 2, 4-5, and 23 are canceled without prejudice. Claims 13-20 were previously cancelled. No new claims are added. Claims 1, 3, 6, 8-9, 21-22, 25-27, and 30 are amended. Therefore, claims 1, 3, 6-12, 21-22, and 24-30 are pending. The following remarks are provided in response to the Office Action mailed May 29, 2009 in which Examiner:

- objects to claims 3 and 6 due to typographical/grammatical errors.
- rejects claims 25 and 27 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- rejects claims 21-26 under 35 U.S.C. § 101 as encompassing non-statutory subject matter.
- rejects claims 1-4, 6, and 21-30 under 35 U.S.C. § 103(a) as being unpatentable over the combination of U.S. Pub. 2005/0169496 to Perry (hereinafter *Perry*) and U.S. Patent No. 5,844,986 to Davis (hereinafter *Davis*).

Applicants respectfully request reconsideration of the above referenced patent application for the following reasons:

REJECTION UNDER 35 U.S.C. § 101 AND SPECIFICATION AMENDMENT

Examiner rejects claims 21-26 under 35 U.S.C. § 101 as allegedly encompassing non-statutory subject matter. Office Action, Page 3. Specifically, Examiner objects to Specification for describing machine-readable medium as having propagation media. Additionally, Examiner suggests amending all machine-readable medium claims to read as computer-readable medium. Applicants amend the Specification and remove reference to propagation media as related to machine-readable medium. Applicants also amend the Specification and claims 21-26 to replace machine-readable medium with computer-readable storage medium. Accordingly, Applicants respectfully request reconsideration of claims 21-26 in view of the amendments.

CLAIM OBJECTIONS

Examiner objects to claims 3 and 6 for allegedly having typographical/grammatical errors. *Id. at 2*. Applicants amend claim 3 and fix the typographical error as suggested by the Examiner.

Regarding claim 6, however, Applicants do not see any typographical error. Claim 6 in original form recites, in part, the following:

“storing said at least one of manufacturer and versioning information in **an asset management log**.”

There is no reason for removing “management log” from the method step because the method as recited is grammatically and technically proper. Accordingly, Applicants respectfully request reconsideration of claims 3 and 6 in view of the amendments and above arguments.

REJECTION UNDER 35 U.S.C. § 112 ¶2

Examiner rejects claims 25 and 27 under 35 U.S.C. § 112 ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. *Id.* Regarding claim 25, Examiner alleges that the term “authenticated hash digest” lacks antecedent basis. Applicants amend claim 25 to depend from claim 24 which defines “an authenticated hash digest.” Regarding claim 27, Examiner alleges that the term “each binary firmware image” lacks antecedent basis. Applicants amend claim 27 to recite “each binary firmware driver” which has proper antecedent basis. Therefore, Applicants respectfully request reconsideration of claims 25 and 27 in view of the amendments.

REJECTION UNDER 35 U.S.C. § 103(a)

Examiner rejects claims 1-4, 6, 21-30 under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Perry* and *Davis*. *Office Action, Page 4*. Applicants amend independent claim 1 which is reproduced below. Independent claim 21 recites similar limitations.

Claim 1 as amended recites the following:

A method, comprising:

- building a steganographic extractor to extract hidden information contained in binary images;

- loading the steganographic extractor during a pre-boot phase of a computer system;

- discovering, during the pre-boot phase, binary firmware images on which a steganographic operation has been performed to generate hidden information contained within each binary firmware image;

- extracting, via the steganographic extractor during the pre-boot phase, the hidden information contained in each binary firmware image discovered;

- obtaining a digital signature contained in the hidden information that is extracted from one of the binary firmware images;

- comparing the digital signature with a known authentic digital signature to determine an authenticity of that binary firmware image;

- providing a notification message to at least one of a user and a system environment log indicating the binary firmware image could not be authenticated;

- providing the user with an option to load the binary firmware image that could not be authenticated; and**

- loading the binary firmware image in response to the request by the user.**

The claim amendments are based on claim 5 which is now cancelled. Examiner admits that limitations of dependent claim 5 are not obvious by *Perry* or *Davis*. Office Action, Page 8. The additional limitations are not disclosed by *Perry* or *Davis* alone or in combination.

Perry, allegedly discloses a steganographic embedder that embeds authentication data and value data into an object. *Perry*, Abstract. However, *Perry* does not provide the user with an option to load the binary firmware image that could not be authenticated. Nor does *Perry* disclose loading of the binary firmware image in response to the request by the user. Similarly, *Davis* whose “primary focus . . . is to prevent corrupting the BIOS by a computer virus . . . by imposing an authentication and validation procedure before the contents of the BIOS flash memory are modified” does not cure the deficiencies of *Perry*. *Davis*, Col. 1, Lines 63-66. For example, as admitted by the Examiner under the section “Allowable Subject Matter,” *Davis* does not does not provide the user with an

option to load the binary firmware image that could not be authenticated. Nor does *Davis* disclose loading of the binary firmware image in response to the requested by the user. .

Based on the above arguments, claim 1 is not obvious by *Perry* and/or *Davis* because the cited references do not disclose all the elements of claim 1. The same limitations are also included in claim 21. Claims 2-6 and 8-12 depend from claim 1. Claims 13-20 were previously cancelled. Claims 22-26 depend from claim 21. Since dependent claims include all limitations of their independent claims, the above claims are not obvious by *Perry* and/or *Davis*.

Applicants also amend independent claim 27 to include limitations similar to allowable claim 7. Claim 27 as amended is reproduced below.

Claim 27 as amended recites the following:

A system comprising:

- a processor;
- a memory, coupled with the processor;
- a flash device, coupled with the processor and having firmware instructions stored therein, which when executed perform operations including:

- loading a steganographic extractor during a pre-boot phase of a computer system into the memory;

- discovering, during the pre-boot phase, binary firmware drivers containing hidden information that was embedded via a steganographic operation;

- extracting, via the steganographic extractor during the pre-boot phase, the hidden information contained in each binary firmware driver that is discovered.

- determining whether each of the binary firmware drivers is a trusted type or a non-trusted type; and**

- directly loading the binary firmware driver which is determined to be of the trusted type.**

Since the amendments are based on allowable claim 7, claim 27 is not obvious by *Perry* and/or *Davis*. See also, Application Specification, Fig. 6a. Claims 28-30 depend from claim 27 and so by nature of dependency include all limitations of claim 27.

Accordingly, Applicants respectfully request reconsideration of claims 1-4, 6, 21-30 in view of the amendments.

ALLOWABLE SUBJECT MATTER

Claims 5 and 7-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for indicating the allowable subject matter.

Applicants include limitations of allowable claim 5 and its based claim into claim 1. Based on the arguments discussed in the above section regarding § 103 rejection, Applicants contend that the amended claims 1 and 21 and their respective dependent claims are also allowable.

Applicants also include limitations of allowable claim 7 into system claim 27. Accordingly, Applicants respectfully request Examiner to allow claims 1, 3, 6-12, 21-22, and 24-30 in view of the amendments.

CONCLUSION

Applicants submit that they have overcome Examiner's objections to and rejections of the claims and that they have the right to claim the invention as listed in the listing of claims. Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Pursuant to 37 C.F.R. § 1.136(a)(3), Applicants request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. § 1.16 and § 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,
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Date

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I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below.

Date: August 31, 2009

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